Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Wireless Telecommunications Bureau Seeks Comment on Proposed Amended Nationwide Programmatic Agreement for the Collocation of Wireless Antennas	)	WT Docket No. 15-180

COMMENTS OF MOBILE FUTURE

Mobile Future submits these comments in response to the Public Notice proposing amendments to the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (the "Collocation Agreement") to further streamline the review of deployments of small wireless antennas and associated equipment under Section 106 of the National Historic Preservation Act.[1] The United States currently leads the world in 4G LTE investment, deployment, and adoption in the midst of skyrocketing mobile data traffic, increased connectivity, and an ever-increasing range of services, applications, and devices available to consumers and businesses alike. But the United States must take steps now to ensure we maintain global leadership as providers enhance their networks and deploy next generation 5G networks. The Commission's proposal to eliminate historic preservation reviews for certain small wireless facility deployments, including small cells and Distributed Antenna Systems, will help remove barriers to network densification and 5G deployment, and will allow consumers access to next generation networks more quickly. The Commission should implement the proposed exclusions and also give close consideration to recommendations from the companies that deploy mobile networks regarding additional flexibility and exclusions for small facilities

[1] Wireless Telecommunications Bureau Seeks Comment on Proposed Amended Nationwide Programmatic Agreement for the Collocation of Wireless Antennas, WT Docket No. 15-180, Public Notice (WTB rel. May 12, 2016) ("Public Notice").

that can be achieved through amendments to the Collocation Agreement. The Commission also should continue to look for additional opportunities to streamline wireless infrastructure deployment.

I. THE GLOBAL RACE TO 5G WILL REQUIRE RAPID INFRASTRUCTURE DEPLOYMENT

The United States leads the world in 4G LTE deployment and adoption. Nearly 100 percent of American consumers now have access to a high speed 4G LTE mobile broadband network and approximately 98 percent have access to multiple providers.[2] Almost 70 percent of Americans own smartphones[3] and approximately 20 percent of U.S. households with Internet access rely solely on mobile services for connectivity at home.[4] Data traffic across America's mobile networks increased 56 percent in 2015,[5] and consumers used 9.6 trillion megabytes of data, three times as much as in 2013.[6] At the same time, we are on the cusp of the next mobile broadband revolution and must take steps now to ensure the United States maintains its global lead.

Consumers are already embracing connected wireless technologies that are changing the way we interact with our homes, cars and health data and the way we do business. But the transition to 5G networks will usher in new paradigms in connectivity to support ultra high-

[2] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, Eighteenth Report, 30 FCC Rcd 13515, ¶ 38, Chart III.A.3 (WT B 2015).

[3] John B. Horrigan and Maeve Duggan, *Home Broadband 2015: The Share of Americans with Broadband at Home Has Plateaued, and More Rely on Their Smartphones for Online Access*, Pew Research Center, at 2 (Dec. 2015), available at http://www.pewinternet.org/2015/12/21/home-broadband-2015/.

[4] *Evolving Technologies Change the Nature of Internet Use*, NTIA Blog, at 3 (Apr. 19, 2016), available at https://www.ntia.doc.gov/blog/2016/evolving-technologies-change-nature-internet-use.

[5] Cisco, *VNI Mobile Forecast Highlights, 2015-2020: United States – 2015 Year in Review* (Feb. 1, 2016), available at http://www.cisco.com/assets/sol/sp/vni/forecast_highlights_mobile/index.html#~Country.

[6] CTIA, *Annual Wireless Survey* (May 23, 2016), available at http://www.ctia.org/your-wireless-life/how-wireless-works/annual-wireless-industry-survey.

definition video services, smart grid and critical infrastructure monitoring, smart city and smart agriculture applications, enhanced public safety capabilities, and improved access to health care.[7] Now customers are using wireless technologies that enable remote home access, thermostat adjustments, fire and water detection, and real-time security feeds. But by 2022, less than six years from now, a typical home could contain more than 500 connected devices to make our homes more secure, efficient, and convenient.[8] Moreover, nearly 97 percent of new cars shipped in the United States will have built-in Internet connectivity by 2020,[9] and more than 250 million connected cars will be on the road worldwide.[10] The United States Department of Transportation estimates that 82 percent of traffic accidents can be addressed with intelligent transportation.[11] Connected intersections will help traffic move more efficiently, reducing the amount of gasoline used by five percent and reducing carbon emissions by five percent.[12] In addition to the Internet of Things, 5G networks will enable immersive multimedia experiences that use 3D video and ultra high-definition video, including mobile telepresence with 3D rendering capabilities, high

[7] *5G Technology Evolution Recommendations*, 4G Americas (Oct. 2015) ("4G Americas Report"), available at http://www.4gamericas.org/files/2414/4431/9312/4G_Americas_5G_Technology_Evolution_Recommendations_-_10.5.15_2.pdf.

[8] iControl, *2015 State of the Smart Home Report* (2015), available at https://www.icontrol.com/blog/2015-state-of-the-smart-home-report/.

[9] John Greenough, *Here's How Big Connected Cards Will Be in Regions Around the World*, Business Insider (Apr. 4, 2015), available at http://www.businessinsider.com/connected-car-shipments-in-north-america-asia-europe-other-regions-2015-4.

[10] Verizon, *State of the Market: Internet of Things 2016* (2016), available at http://www.verizon.com/about/sites/default/files/state-of-the-internet-of-things-market-report-2016.pdf.

[11] U.S. Department of Transportation, *Connected Vehicle Research in the United States* (Oct. 2015), available at http://www.its.dot.gov/connected_vehicle/connected_vehicle_research.htm.

[12] Ellen Chang, *How a 'Connected' Car Could Save You Money*, CBS News (Oct. 15, 2014), available at http://www.cbsnews.com/news/how-a-connected-car-could-save-you-money/.

resolution devices, head-mounted displays, and wearables in fields such as emergency services, public safety, telemedicine, and professional services.[13]

Realizing the full potential of 5G will require networks that can support billions of simultaneously connected devices and offer exceptional network reliability. Already there are more than an estimated nine billion connected devices globally, but that number will soon skyrocket to 28 billion connected devices by 2021[14] and up to 50 billion connected devices by 2025.[15] By 2021, 1.5 billion IoT devices will have cellular subscriptions, 70 percent of mobile data traffic will be from video, and there may be more than 150 million 5G subscriptions globally.[16] To keep up with this ever-growing demand, providers will need to continue macro cell deployments while also rapidly deploying very dense networks of small facilities.

II. THE COMMISSION SHOULD ELIMINATE UNNECESSARY IMPEDIMENTS TO WIRELESS INFRASTRUCTURE DEPLOYMENT

The Commission's proposed amendments to the Collocation Agreement to eliminate historic preservation reviews for certain small wireless facilities are a positive step toward streamlining infrastructure deployment processes and will help service providers meet increasing consumer demand for mobile broadband while supporting the transition to 5G networks. Small wireless facilities are unlikely to affect historic properties and districts, yet under current processes they are often subjected to lengthy reviews that delay deployment. The Commission

[13] 4G Americas Report at 6.

[14] Ericsson, *Ericsson Mobility Report: On the Pulse of the Networked Society* (June 2016), available at http://www.ericsson.com/res/docs/2016/ericsson-mobility-report-2016.pdf.

[15] McKinsey Global Institute, *The Internet of Things: Mapping the Value Beyond the Hype*, at 17 (June 2015), available at http://www.mckinsey.com/business-functions/business-technology/our-insights/the-internet-of-things-the-value-of-digitizing-the-physical-world.

[16] Ericsson Mobility Report at 2, 3, 16.

correctly proposes to exclude many small wireless facility deployments from the Section 106 historic preservation review process.[17]

In addition to the exclusions specifically proposed in the Public Notice, the Commission should closely examine comments filed by companies deploying mobile broadband networks and adopt any additional exclusions, or flexibility to the Commission's proposed amendments, as appropriate. Mobile Future commends the Commission for working with the ACHP, the National Conference of Historic Preservation Officers, State Historic Preservation Officers, Tribal Historic Preservation Officers, and Tribal Nations to strike a balance between facilitating small facility deployment and preserving historic properties and districts.[18] The Commission should move swiftly to finalize the amendments – as modified consistent with the record developed in this proceeding – and thereby remove unnecessary barriers to deploying small wireless facilities. The Commission should act within the timeline it set out in the 2014 Infrastructure Order and ensure that an ACHP-approved program alternative for Section 106 review is concluded by October 2016.[19]

Further, the Commission should continue its broader efforts to streamline infrastructure deployment processes, in particular by working with other Federal agencies to adopt smart policies that promote wireless facilities deployment, including DAS and small cells, on Federal lands and establishing timelines for permitting processes, including expedited approval for upgrades, modifications, and collocations, all of which promote consumers' interests by facilitating access to the services they demand.

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[17] Public Notice at 1.

[18] *Id.* at 3.

[19] *Accelerating Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report and Order, 29 FCC Rcd 12865 (2014).

III. CONCLUSION

The Commission should adopt the proposed amendments to the Collocation Agreement – with modifications based on the record in this proceeding – and work with the ACHP and NCSHPO to finalize the revised Agreement by October of this year. Removing unnecessary barriers to the rapid deployment of small wireless facilities will facilitate further broadband deployment and the availability of next generation 5G networks.

Respectfully submitted,

By: /s/ Jonathan Spalter
Jonathan Spalter, Chairman
Allison Remsen, Executive Director
Rachael Bender, Senior Policy Director
MOBILE FUTURE
1325 Pennsylvania Avenue, N.W., Suite 600
Washington, D.C. 20004
(202) 756-4154
www.mobilefuture.org

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